

REMARKS/ARGUMENTS

With this amendment, claims 1, 3, and 16-20 are pending. Claims 2 and 4-15 are canceled without prejudice to subsequent revival. For convenience, the Examiner's rejections are addressed in the order presented in a March 9, 2004 Office Action.

I. Status of the claims

Claims 2 and 4-15 are canceled without prejudice to subsequent revival.

Claim 2 is amended to recite a recombinant nucleic acid that comprises a nucleic acid sequence having greater than about 95% identity to a reference sequence, *e.g.*, SEQ ID NO:1, 3, or 5. New claim 21 is added and recites 98% identity to a reference sequence. Support for these amendments is found throughout the specification, for example at page 18, lines 30-35. Claim 2 is also amended to recite a nucleic acid sequence that encodes a MINK3 protein or a complement of the nucleic acid sequence. Support for this amendment is found throughout the specification, for example at page 20, lines 4-6. Claim 2 is also amended to correct a punctuation error. Claim 17 is amended to remove dependency on canceled claim 1. These amendments add no new matter.

Claim 16 is amended to recite a nucleic acid sequence that encodes a MINK3 protein having greater than about 95% identity to a reference sequence, *e.g.*, SEQ ID NO:2, 4, or 6. New claim 22 is added and recites 98% identity to a reference sequence. New claim 23 is added and is directed to a nucleic acid that encodes a MINK3 protein that comprises SEQ ID NO:2, 4, or 6. Support for these amendments is found throughout the specification, for example at page 15, lines 1-7. These amendments add no new matter.

New claims 24-26 are added and recite functions of the encoded MINK3 proteins. For example, the MINK3 protein activates a JNK protein or an ERK protein in claims 24 and 25. Support for these amendments is found throughout the specification, for example at page 22, lines 24-29; at page 63, lines 5-8; and at Figure 13. In claim 26 the MINK3 protein is required to bind to a Nck protein. Support for this amendment is found throughout the specification, for

example at page 13, lines 31-33 and at page 63, lines 12-14. These amendments add no new matter.

II. Rejections under 35 U.S.C. §112, first paragraph, written description

Claims 1-3 are rejected under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the written description requirement. The Office Action objects to use of hybridization to identify the members of a genus, and to a genus of nucleic acids having greater than about 90% identity to a reference sequence. In addition, the Office Action objects to recitation of "a nucleic acid or its complement encodes a MINK3 protein."

To the extent the rejection applies to the amended claims, Applicants respectfully traverse the rejection. Claim 1, which recited hybridization language, is now cancelled without prejudice to subsequent revival. Claim 2 is now amended to recite a nucleic acid sequence having at least about 95% identity to a reference sequence, *e.g.*, SEQ ID NO:1, 3, or 5. New claim 21 recites 98% identity to a reference nucleic acid sequence. Claim 16 is now amended to recite a nucleic acid sequence encoding a MINK3 protein comprising an amino acid sequence having at least about 95% identity to a reference sequence, *e.g.*, SEQ ID NO:2, 4, or 6. New claim 21 recites 98% identity to a reference nucleic acid sequence.

In addition, claim 2 has been amended to recite that the nucleic acid, and not its complement, encodes a MINK3 protein. Applicants also point out that, as indicated in the specification at page 20, lines 4-6, provision of a DNA sequence allows those of skill to easily determine the sequence of a complementary DNA sequence. Thus, complementary sequences of the claimed sequences are fully described by the specification.

In view of the above arguments and remarks, Applicants respectfully request withdrawal of the rejection.

III. Rejections under 35 U.S.C. §102(b)

Claims 1-3 and 16-18 are rejected under 35 U.S.C. 102(b) as allegedly anticipated by Ippeita *et al.* and by Plowman *et al.* To anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the

claim is found...in a single prior art reference." *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Thus, in order to anticipate, the cited references must contain every element of the claims at issue.

To the extent the rejection applies to the amended claims, Applicants respectfully traverse the rejection. In order to expedite prosecution, claim 1 is canceled and claim 2 is amended to recite a nucleic acid having greater than about 98% identity to SEQ ID NO:1, 3, or 5.

The Office Action also alleges that claim 16, directed to nucleic acids that "encode a MINK3 protein comprising an amino acid sequence selected from the group consisting of the amino acid sequences set forth in SEQ ID NOs:2, 4, and 6," is anticipated by Ippeita *et al.*, because of the use of the term comprising. The Office Action appears to assert that the MINK3 polypeptide of SEQ ID NO:2 contains the full amino acid sequence of the MINK1 protein of Ippeita *et al.* or the ZC3 protein of Plowman *et al.* in combination with additional amino acid sequence. This assertion is incorrect. MINK1 or ZC3 amino acid residues 582-602 are not present in SEQ ID NO:2. See, *e.g.*, bases 1738-1798 of MINK1 on the alignment sent with the Office Action. Because SEQ ID NO:2 does not include all the sequences of the cited MINK1 or ZC3 proteins, claim 16 and dependent claims 17-20 cannot be anticipated by the cited art.

In view of the above amendments and remarks, Applicants respectfully request withdrawal of the rejection.

IV. Rejections under 35 U.S.C. §112, second paragraph

Claim 1 is rejected as allegedly being indefinite for reciting "capable of." In order to expedite prosecution, claim 1 is canceled. In view of this amendment, withdrawal of the rejection is respectfully requested.

CONCLUSION

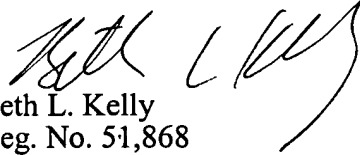
In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Appl. No. 10/029,115
Amdt. dated June 9, 2004
Reply to Office Action of March 9, 2004

PATENT

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,


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Attachments
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